

CLAIMS:

1. A method of monitoring the operation of at least one microcontroller unit (300) that is intended for at least one application and is associated with a system (100), by means of at least one base chip (200), particularly a system base chip, characterized in that a reset (R) of the microcontroller unit (300) is caused if at least one special sequence,
5 particularly at least one drive or access sequence assigned to the reset operation (R), is applied to the base chip (200).
2. A method as claimed in claim 1, characterized in that a special mode of operation (S), particularly a flash mode of the base chip (200), can be activated once after the
10 special sequence and after the reset operation (R), by allowing access to at least one monitoring module (10) that is associated with the base chip (200) to take place in a manner which is simplified in comparison with the normal mode of operation (N) of the microcontroller unit (300).
- 15 3. A method as claimed in claim 2, characterized in that:
 - during the special mode of operation (S), use is made of a special trigger code or a special trigger signal for the monitoring module (10) that is different from the normal mode of operation (N); and
 - a fresh reset of the microcontroller unit (300) is caused by the normal trigger
20 code or the normal trigger signal, to enable the special mode to be exited again.
4. A method as claimed in any of claims 1 to 3, characterized in that:
 - a distinction can be made between reset events that differ in relation to the operation of the microcontroller unit (300); and
 - 25 - these different reset events are suitably logged and made known in at least one register unit (20) by means of different register entries.

5. A base chip (200), particularly a system base chip, for monitoring the operation of at least one microcontroller unit (300) that is intended for at least one application, characterized by:

- at least one reset unit (40) for resetting (R) the microcontroller unit (300),
5 which reset unit (40) is connected (42) to said microcontroller unit (300);
- at least one special sequence, particularly a drive or access sequence, that is assigned to a reset (R) of the microcontroller unit (300).

6. A base chip as claimed in claim 5, characterized by:

- 10 - at least one monitoring module (10) that is associated with the microcontroller unit (300); and
- at least one register unit (20) that is provided to allow for different reset events, for logging and making known different reset events by means of different register entries.

7. A base chip as claimed in claim 6, characterized in that:

- the monitoring module (10) is triggerable in particular by means of at least one interface unit (30); and/or
- to distinguish between the particular accesses to the monitoring module (10),
20 different reset events can be marked by different trigger codes or trigger signals.

8. A base chip as claimed in claim 7, characterized in that there is provided between the monitoring module (10) and the microcontroller unit (300) at least one signal line (32) for transmitting at least one trigger code or trigger signal that differs from the
25 normal mode of operation (N) of the microcontroller unit (300).

9. A system (100), and particularly a control system, characterized by at least one microcontroller unit (300) intended for at least one application and by at least one base chip (200) as claimed in any of claims 5 to 8.

30 10. Use of a method as claimed in any of claims 1 to 4 and/or of at least one base chip (200) as claimed in any of claims 5 to 8 for monitoring the operation of at least one microcontroller unit (300) intended for at least one application, in automobile electronics and in particular in the electronics of motor vehicles.